

# PLUMBING APPRENTICE

Course Descriptions - Catalog Year: 2022

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**PLAP 0000 Plumbing Apprentice Orientation****0 Hours**

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**PLAP 1011 Plumbing 1A****90 Hours**

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Plumbing 1A emphasizes the history and importance of plumbing, general health and safety, pipe fittings, and mathematics. Throughout this course, you will explore the job requirements of the plumbing industry and develop workplace relations and job-seeking skills. You will also be introduced to the hand tools, power tools, and equipment used in the industry. You will study administration, definitions, and general regulations of the International Plumbing Code as part of this course. In addition to regular coursework, you will have the option of becoming certified in Cardiopulmonary Resuscitation (CPR).

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**PLAP 1012 Plumbing 1B****90 Hours**

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Plumbing 1B explores industry mathematics including standard weight pipe, copper tubing, plastic pipe, welded steel piping, and allowances for threaded pipe and copper fittings and weld-type fittings. During this course, you will study equal spacing, angles in plumbing, offset, diagonal and rise or run, solving angle problems, and Wye and Tee-wye assemblies. In addition, you will review fixture faucets and fittings with the International Plumbing Code, as well as fixture and appliance installation, system maintenance and repair, and water and sewage treatment plants.

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**PLAP 1021 Plumbing 2A****90 Hours**

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Plumbing 2A emphasizes administration, definitions, general regulations, fixtures, faucets and fixtures, water heaters, water supply and distribution for International Plumbing Code. During this course, you will study water systems, joining pipes, and private water systems for residential plumbing. You will also be introduced to blueprint reading, sketches and diagrams for Plumbers, and rough-in locations. Finally, you will explore how to set toilets, including wall-hung, floor mount and urinals, install sinks, and repair valves.

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**PLAP 1022 Plumbing 2B****90 Hours**

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Plumbing 2B explores secondary drainage, indirect and special waste, and vents as they are defined in the International Plumbing Code. Throughout this course, you will study drainage systems, septic systems, and water treatment as they apply to residential plumbing. You will also examine mathematic concepts including: grade, percent grade, drop and run, elevation and grade, elevation in a plan view pipe diagram, 45-degree offsets in parallel, and rolling offsets.

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**PLAP 1031 Plumbing 3A****90 Hours**

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Plumbing 3A explores general regulations, fixtures, faucets, and fixtures for the International Plumbing Code. Throughout this course, you will study water heating, Vents, combustible air, chimney, and vents in the International Mechanical Code. You will also examine rectangular solids, cylinders, and spheres in mathematics. Finally, you will practice how to join PVC pipes and fittings, soldering copper pipes, and fittings.

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**PLAP 1032 Plumbing 3B****90 Hours**

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Plumbing 3B studies the International Plumbing Code in which you will review vents, commercial applications, indirect waste, commercial/industrial waste applications, water supply and distribution, and special piping and storage systems. Special piping and storage systems will also be included. In the International Fuel and Gas Code, you will explore pipe materials, sizing, gas valves and controls, installation requirements, appliance connections, and supplemental and standby gas supplies.

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**PLAP 1041 Plumbing 4A****90 Hours**

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Plumbing 4A introduces traps and commercial applications as well as storm drainage for the International Plumbing Code. During this course, you will study boilers, water heaters, and pressure vessels as part of the International Mechanical Code. You will also be introduced to welding safety, Oxy-acetylene cutting SMAW (ARC) welding, and GMAW (TIG) welding as it applies to the plumbing industry. Finally, you will review Plumbing trade formulas.

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**PLAP 1042 Plumbing 4B****90 Hours**

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Plumbing 4B explores the International Mechanical Code including boilers, water heaters, pressure vessels, refrigeration, and hydronic piping. In the International Plumbing Code, you will review all applicables in preparation for the Utah Journeyman license written exam. You will also study hydronics systems, including radiant floor heating, distribution and piping systems, expansion tanks, air removal, and auxiliary heating loads. Extensive laboratory work will be spent on projects to simulate the Utah Journeyman license practical exam.

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**PLAP 0900 Plumbing: Basic Introduction I****90 Hours**

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This course provides students with a basic introduction to the plumbing industry. Students will learn how to properly care for and use basic hand and power tools as well as many of the safety precautions related to the construction site and the building plumbing system. Students will become familiar with the basics of reading blueprints. Students will be introduced to the installation and testing requirements of water distribution and drain, waste, and vent (DWV) systems. Students will also gain a basic level experience in the installation of typical plumbing fixtures.

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**PLAP 0901 Plumbing: Basic Introduction II****90 Hours**

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This course provides students with a basic introduction to the plumbing industry. Students will learn how to properly care for and use basic hand and power tools as well as many of the safety precautions related to the construction site and the building plumbing system. Students will become familiar with the basics of reading blueprints. Students will be introduced to the installation and testing requirements of water distribution and drain, waste, and vent (DWV) systems. Students will also gain a basic level experience in the installation of typical plumbing fixtures.

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**PLAP 0902 Plumbing: Basic Introduction III****90 Hours**

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This course provides students with a basic introduction to the plumbing industry. Students will learn how to properly care for and use basic hand and power tools as well as many of the safety precautions related to the construction site and the building plumbing system. Students will become familiar with the basics of reading blueprints. Students will be introduced to the installation and testing requirements of water distribution and drain, waste, and vent (DWV) systems. Students will also gain a basic level experience in the installation of typical plumbing fixtures.

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**PLAP 0903 Plumbing: Intermediate Introduction I**

**90 Hours**

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This course expands the students' knowledge of the plumbing industry. Students will learn how to properly care for and use additional hand and power tools. Students will review the building permitting and inspection process for various local jurisdictions. Students will be introduced to the general requirements of the state-adopted plumbing codes. Students will enhance their blueprint reading skills. Students will also continue their study and practice of the installation and testing of water distribution and drain, waste, and vent (DWV) systems to include design considerations. Students will gain additional skills in the installation of plumbing fixtures and learn the basics of servicing and repairing these fixtures.

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**PLAP 0904 Plumbing: Intermediate Introduction II**

**90 Hours**

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This course expands the students' knowledge of the plumbing industry. Students will learn how to properly care for and use additional hand and power tools. Students will review the building permitting and inspection process for various local jurisdictions. Students will be introduced to the general requirements of the state-adopted plumbing codes. Students will enhance their blueprint reading skills. Students will also continue their study and practice of the installation and testing of water distribution and drain, waste, and vent (DWV) systems to include design considerations. Students will gain additional skills in the installation of plumbing fixtures and learn the basics of servicing and repairing these fixtures.

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**PLAP 0905 Plumbing: Intermediate Introduction III**

**90 Hours**

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This course expands the students' knowledge of the plumbing industry. Students will learn how to properly care for and use additional hand and power tools. Students will review the building permitting and inspection process for various local jurisdictions. Students will be introduced to the general requirements of the state-adopted plumbing codes. Students will enhance their blueprint reading skills. Students will also continue their study and practice of the installation and testing of water distribution and drain, waste, and vent (DWV) systems to include design considerations. Students will gain additional skills in the installation of plumbing fixtures and learn the basics of servicing and repairing these fixtures.

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**PLAP 0906 Plumbing: Advanced Introduction I**

**90 Hours**

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This course expands the students' knowledge of the plumbing industry by introducing them to the state regulations and employment market. In addition to increasing their knowledge of the design considerations of the water distribution and drain, waste, and vent systems, students will also develop additional skills in the service and repair of more complex plumbing fixtures and apparatuses. Students will also review the state statutes and rules related to the plumbing industry and complete the state apprentice license application in preparation for employment in the industry.

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**PLAP 0907 Plumbing: Advanced Introduction II**

**90 Hours**

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This course expands the students' knowledge of the plumbing industry by introducing them to the state regulations and employment market. In addition to increasing their knowledge of the design considerations of the water distribution and drain, waste, and vent systems, students will also develop additional skills in the service and repair of more complex plumbing fixtures and apparatuses. Students will also review the state statutes and rules related to the plumbing industry and complete the state apprentice license application in preparation for employment in the industry.

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**PLAP 0908 Plumbing: Advanced Introduction III**

**90 Hours**

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This course expands the students' knowledge of the plumbing industry by introducing them to the state regulations and employment market. In addition to increasing their knowledge of the design considerations of the water distribution and drain, waste, and vent systems, students will also develop additional skills in the service and repair of more complex plumbing fixtures and apparatuses. Students will also review the state statutes and rules related to the plumbing industry and complete the state apprentice license application in preparation for employment in the industry.

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**PLAP 0909 Plumbing: Advanced Introduction IV**

**90 Hours**

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This course expands the students' knowledge of the plumbing industry by introducing them to the state regulations and employment market. In addition to increasing their knowledge of the design considerations of the water distribution and drain, waste, and vent systems, students will also develop additional skills in the service and repair of more complex plumbing fixtures and apparatuses. Students will also review the state statutes and rules related to the plumbing industry and complete the state apprentice license application in preparation for employment in the industry.

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**PLAP 0910 Plumbing: Advanced Introduction V**

**90 Hours**

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This course expands the students' knowledge of the plumbing industry by introducing them to the state regulations and employment market. In addition to increasing their knowledge of the design considerations of the water distribution and drain, waste, and vent systems, students will also develop additional skills in the service and repair of more complex plumbing fixtures and apparatuses. Students will also review the state statutes and rules related to the plumbing industry and complete the state apprentice license application in preparation for employment in the industry.

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**PLAP 0911 Plumbing: Advanced Introduction VI**

**90 Hours**

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This course expands the students' knowledge of the plumbing industry by introducing them to the state regulations and employment market. In addition to increasing their knowledge of the design considerations of the water distribution and drain, waste, and vent systems, students will also develop additional skills in the service and repair of more complex plumbing fixtures and apparatuses. Students will also review the state statutes and rules related to the plumbing industry and complete the state apprentice license application in preparation for employment in the industry.

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**PLAP 0912 Plumbing: Advanced Introduction VII**

**90 Hours**

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This course expands the students' knowledge of the plumbing industry by introducing them to the state regulations and employment market. In addition to increasing their knowledge of the design considerations of the water distribution and drain, waste, and vent systems, students will also develop additional skills in the service and repair of more complex plumbing fixtures and apparatuses. Students will also review the state statutes and rules related to the plumbing industry and complete the state apprentice license application in preparation for employment in the industry.

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**PLAP 0913 Plumbing: Advanced Introduction VIII****90 Hours**

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This course expands the students' knowledge of the plumbing industry by introducing them to the state regulations and employment market. In addition to increasing their knowledge of the design considerations of the water distribution and drain, waste, and vent systems, students will also develop additional skills in the service and repair of more complex plumbing fixtures and apparatuses. Students will also review the state statutes and rules related to the plumbing industry and complete the state apprentice license application in preparation for employment in the industry.

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**PLAP 1905 Introduction to Plumbing****45 Hours**

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**FUND 0030 Program Directed Study****30 Hours**

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Students in this course will receive general assistance with program and course study, test preparation and the development of individual study resources.

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**FUND 0091 Study Skills****30 Hours**

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Students will learn to use effective study habits and strategies for remembering information found in their textbooks and heard in-class lectures. Students will also learn to use a strategy for reading and taking notes from textbooks, taking notes in class, and learn effective strategies for taking the five types of tests most frequently given by teachers.